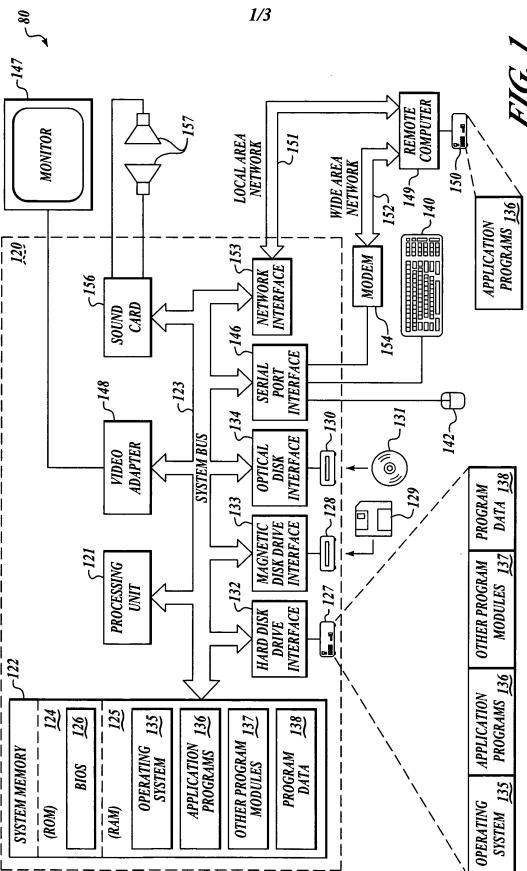Title: LOSSLESS, CONTEXT-FREE COMPRESSION
SYSTEM AND METHOD
Inventors: David Erb et al.
Application No.: 09/722,774
Docket No.: 50037.47US01

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FIG. 1

Title: LOSSLESS, CONTEXT-FREE COMPRESSION
SYSTEM AND METHOD
Inventors: David Erb et al.
Application No.: 09/722,774
Docket No.: 50037.47US01

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START

RECORD ABSOLUTE
VALUES OF COUNTERS — 202

COLLECT PROFILING DATA — 204

COMPRESS DATA — 206

ACCUMULATE DATA TO BUFFER — 208

BUFFER
FULL? — 210
NO

YES

TRANSFER BUFFER
DATA TO LOGGER — 212

COMPRESS DATA — 216

WRITE DATA TO FILE — 214

— 200

FIG. 2

Title: LOSSLESS, CONTEXT-FREE COMPRESSION
SYSTEM AND METHOD
Inventors: David Erb et al.
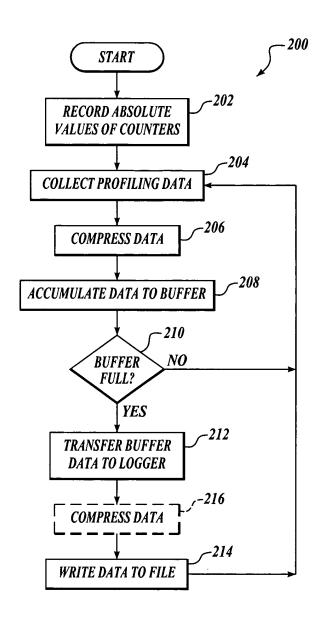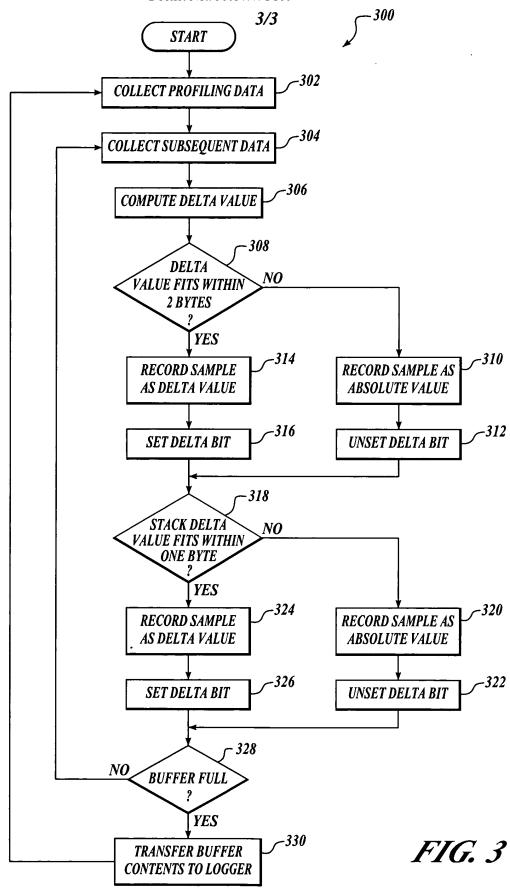Application No.: 09/722,774
Docket No.: 50037.47US01

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_300_

```
            ( START )
                │
                ▼
    ┌───────────────────────┐
    │ COLLECT PROFILING DATA │──302
    └───────────────────────┘
                │
                ▼
    ┌────────────────────────┐
    │ COLLECT SUBSEQUENT DATA │──304
    └────────────────────────┘
                │
                ▼
    ┌─────────────────────┐
    │ COMPUTE DELTA VALUE  │──306
    └─────────────────────┘
                │
                ▼
           ╱─────────╲
          ╱   DELTA    ╲    308
         ╱ VALUE FITS    ╲  NO ──────────────────┐
         ╲  WITHIN       ╱                        │
          ╲  2 BYTES    ╱                         │
           ╲    ?      ╱                          │
            ╲────┬────╱                           │
               YES                                │
                ▼                                 ▼
    ┌──────────────────┐              ┌──────────────────┐
    │ RECORD SAMPLE    │──314         │ RECORD SAMPLE AS │──310
    │ AS DELTA VALUE   │              │ ABSOLUTE VALUE   │
    └──────────────────┘              └──────────────────┘
                │                                 │
                ▼                                 ▼
    ┌──────────────────┐              ┌──────────────────┐
    │ SET DELTA BIT    │──316         │ UNSET DELTA BIT  │──312
    └──────────────────┘              └──────────────────┘
                │                                 │
                ▼◄────────────────────────────────┘
           ╱─────────╲
          ╱  STACK     ╲   318
         ╱ DELTA VALUE   ╲  NO ──────────────────┐
         ╲ FITS WITHIN   ╱                        │
          ╲  ONE BYTE   ╱                         │
           ╲    ?      ╱                          │
            ╲────┬────╱                           │
               YES                                │
                ▼                                 ▼
    ┌──────────────────┐              ┌──────────────────┐
    │ RECORD SAMPLE    │──324         │ RECORD SAMPLE AS │──320
    │ AS DELTA VALUE   │              │ ABSOLUTE VALUE   │
    └──────────────────┘              └──────────────────┘
                │                                 │
                ▼                                 ▼
    ┌──────────────────┐              ┌──────────────────┐
    │ SET DELTA BIT    │──326         │ UNSET DELTA BIT  │──322
    └──────────────────┘              └──────────────────┘
                │                                 │
                ▼◄────────────────────────────────┘
           ╱─────────╲
     NO   ╱  BUFFER    ╲   328
   ◄─────╱   FULL       ╲
         ╲    ?        ╱
          ╲──────┬────╱
               YES
                ▼
    ┌──────────────────┐
    │ TRANSFER BUFFER  │──330
    │ CONTENTS TO LOGGER│
    └──────────────────┘
```

FIG. 3